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<p>(51) International Patent Classification ⁷ : C12N 15/12, C07K 14/47, 16/18, C12Q 1/68, G01N 33/53, A61K 38/17, 48/00, A01K 67/027</p>	<p>A2</p>	<p>(11) International Publication Number: WO 00/40719</p> <p>(43) International Publication Date: 13 July 2000 (13.07.00)</p>
<p>(21) International Application Number: PCT/GB00/00003</p> <p>(22) International Filing Date: 6 January 2000 (06.01.00)</p> <p>(30) Priority Data: 9900167.9 6 January 1999 (06.01.99) GB</p> <p>(71) Applicant (for all designated States except US): UNIVERSITY OF LEEDS [GB/GB]; Leeds LS2 9JT (GB).</p> <p>(72) Inventors; and (75) Inventors/Applicants (for US only): MARKHAM, Alexander, Fred [GB/GB]; Molecular Medicine Unit, Clinical Sciences Building, St. James's University Hospital, Leeds LS9 7TF (GB). BONTHRON, David [GB/GB]; Molecular Medicine Unit, Clinical Sciences Building, St. James's University Hospital, Leeds LS9 7TF (GB).</p> <p>(74) Agent: HARRISON GODDARD FOOTE; Belmont House, 20 Wood Lane, Leeds LS6 2AE (GB).</p>	<p>(81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).</p> <p>Published <i>Without international search report and to be republished upon receipt of that report.</i></p>	
<p>(54) Title: WOUND HEALING AND OROFACIAL CLEFTING</p> <p>(57) Abstract</p> <p>A nucleic acid molecule, fragment or derivative thereof which encodes a tissue repair protein wherein said isolated nucleic acid molecule, fragment or derivative thereof, has the nucleotide sequence of SEQ ID NO:1. The invention also discloses use of the protein, the production of antibodies thereto, reporter gene construct and the use of the nucleic acid, protein, antibodies and products there in diagnosing and treating orofacial clefting, tissue damage and/or for wound healing.</p>		
<div style="display: flex; justify-content: space-between;"> <div style="width: 60%;"> <p>87 atggagcgccgagcgagagcccggtgtctcgggacagcccgac M E R R S E S P C L R D S P D 132 cggcgagcgccgagcccgagcgctcaggggccctccccagtgag R R S G S P D V K G P P P V K 177 gtggcccgctggagcagacggcagcccatgggagcccgagg V A R L E Q N G S P M G A R G 222 agggcccaaggcgccgtggcaggcggtgggaggttggatg R P N G A V A K A V G G L M I 267 cctgtctttgtgtcgtggagcgttggagcgtctcttgaat P V F C V V E Q L D G S L E Y 312 gacaaagagagagacacggcaggttgcctgtgaggaagat D N R E F H A E F V L V R K D 357 gtgccttttagccagctgtgtgagactgcgtcctgtgcccgtggg V L F S Q L V E T A L L A L G 402 tattctcaagctctcgtggcccgagcccaaggaataatcaagctg Y S H S S A A Q A Q G I I K L 447 ggaagtggaacccctccccctcagttatgtgacagatgcaccc G R M N P L P L S Y V T D A P 492 gacgagcagtgaggcgacatgctcaagatgtctatcatgtttgtg D A T V A D M L Q D V Y H V V 537 acgttgaatacccaattacaaagtgttcagaagtggaagcttg T L K I O L O S C S K L E D L 582 cctcgagagcagtggaacatgccacagtcgcgaatgcctaaag P A E Q W N N H A T V R N A L K 627 gaactgtcaagagatgaaccagagcacattagccaagaatgc E L L K E M N Q S T L A K E C 672 cctctctccagagtgatgtttcatccattgttaaatagcacat P L S Q S M I S S I V N S T Y 717 tatgccaatgtgtcagcaccgaatgccaggagttgtggagatgg Y A N V S A T K C Q E F G R W 762 tataaaggtacagagattcaagtggaagagtggaacagagaa Y E K Y K K I K V E R V E R E 807 aaccttccagactattgtgtctgggccaagcgtccaatgcatte N L S D Y C V L E Q R P M H L 852 ccaaatatgaaccagctggcatccctggggaaaaccacgaacag P N M N Q L A S L G K T N E Q 897 tctcctccagcccaattccacacagtactccaatccgaaccaa S P H S Q I H H S T P I R N Q 942 gtgcgcgattacagcccatatggagccctgtgtctttctccc V P A L Q P I M S P G L L S P 987 cagcttgctcccaactgtgaagcacaacatagccatggccat Q L S P Q L V R Q Q T A H A H 1032 ctgataaccacagattgccttgagccgctcctgtgctccag L I N Q Q I A V S R L L A N Q 1077 catctcgaagccatcaaccagcagttctgaaccatccaccatc H P Q A I N Q Q F L N H P P I 1122 cccagagcagtttaagccagagccaacacactcttcgtggaagtc P R A V K P E P T N S S V E V 1167 tctccagatctcaccagcagtcagagatgagctgaaggggcc S P D I Y Q Q V R D E L K R A 1212 agtgtgtcccaagctgtctttgcaagatggcattcaacgcaca S V S Q A V F A R V A F N R T 1257 caggagttgtctgagattctgctgaaggaagagagccctcgg Q L L S E T L R K E D P 1302 acagcctctcagttctctcagtaaacctgagggccatgcagat T A S Q S L L V N L R A M Q N</p> </div> <div style="width: 35%; font-family: monospace;"> <p>87 atggagcgccgagcgagagcccggtgtctcgggacagcccgac M E R R S E S P C L R D S P D 132 cggcgagcgccgagcccgagcgctcaggggccctccccagtgag R R S G S P D V K G P P P V K 177 gtggcccgctggagcagacggcagcccatgggagcccgagg V A R L E Q N G S P M G A R G 222 agggcccaaggcgccgtggcaggcggtgggaggttggatg R P N G A V A K A V G G L M I 267 cctgtctttgtgtcgtggagcgttggagcgtctcttgaat P V F C V V E Q L D G S L E Y 312 gacaaagagagagacacggcaggttgcctgtgaggaagat D N R E F H A E F V L V R K D 357 gtgccttttagccagctgtgtgagactgcgtcctgtgcccgtggg V L F S Q L V E T A L L A L G 402 tattctcaagctctcgtggcccgagcccaaggaataatcaagctg Y S H S S A A Q A Q G I I K L 447 ggaagtggaacccctccccctcagttatgtgacagatgcaccc G R M N P L P L S Y V T D A P 492 gacgagcagtgaggcgacatgctcaagatgtctatcatgtttgtg D A T V A D M L Q D V Y H V V 537 acgttgaatacccaattacaaagtgttcagaagtggaagcttg T L K I O L O S C S K L E D L 582 cctcgagagcagtggaacatgccacagtcgcgaatgcctaaag P A E Q W N N H A T V R N A L K 627 gaactgtcaagagatgaaccagagcacattagccaagaatgc E L L K E M N Q S T L A K E C 672 cctctctccagagtgatgtttcatccattgttaaatagcacat P L S Q S M I S S I V N S T Y 717 tatgccaatgtgtcagcaccgaatgccaggagttgtggagatgg Y A N V S A T K C Q E F G R W 762 tataaaggtacagagattcaagtggaagagtggaacagagaa Y E K Y K K I K V E R V E R E 807 aaccttccagactattgtgtctgggccaagcgtccaatgcatte N L S D Y C V L E Q R P M H L 852 ccaaatatgaaccagctggcatccctggggaaaaccacgaacag P N M N Q L A S L G K T N E Q 897 tctcctccagcccaattccacacagtactccaatccgaaccaa S P H S Q I H H S T P I R N Q 942 gtgcgcgattacagcccatatggagccctgtgtctttctccc V P A L Q P I M S P G L L S P 987 cagcttgctcccaactgtgaagcacaacatagccatggccat Q L S P Q L V R Q Q T A H A H 1032 ctgataaccacagattgccttgagccgctcctgtgctccag L I N Q Q I A V S R L L A N Q 1077 catctcgaagccatcaaccagcagttctgaaccatccaccatc H P Q A I N Q Q F L N H P P I 1122 cccagagcagtttaagccagagccaacacactcttcgtggaagtc P R A V K P E P T N S S V E V 1167 tctccagatctcaccagcagtcagagatgagctgaaggggcc S P D I Y Q Q V R D E L K R A 1212 agtgtgtcccaagctgtctttgcaagatggcattcaacgcaca S V S Q A V F A R V A F N R T 1257 caggagttgtctgagattctgctgaaggaagagagccctcgg Q L L S E T L R K E D P 1302 acagcctctcagttctctcagtaaacctgagggccatgcagat T A S Q S L L V N L R A M Q N</p> </div> </div>		